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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,153	05/16/2005	Gon Seo	SHI 2480	2398

7590
Maria Parrish Tungol
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5820 Fifer Drive
Alexandria, VA 22303

10/13/2010

EXAMINER

MULCAHY, PETER D

ART UNIT	PAPER NUMBER
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1762

MAIL DATE	DELIVERY MODE
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10/13/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/535,153	Applicant(s) SEO, GON	
	Examiner Peter D. Mulcahy	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-64 is/are pending in the application.
- 4a) Of the above claim(s) 34,35,42,44 and 46-64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33,36-41,43 and 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 33, 36-41, 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomihisa et al. US 5,683,501.
4. The rejection set forth under 35 USC 102/103 in the paper mailed 3/18/10 is deemed proper and is herein repeated.
5. The newly amended claims, remarks and declaration signed by Gon Seo have been fully considered. These have failed to place the claims in condition for allowance for the following reasons.
6. Applicant's primary point of contention is that the silica in Tomihisa is not a starting material. It is alleged that the silica of the prior art is a reaction product of the hydrolysis-condensation reactions of the siloxane groups on the organic polymer. This

Art Unit: 1762

is not persuasive. First and foremost, the claims are not drafted so as to limit the silica be a starting material distinguished from the silica of the prior art. Applicant is arguing limitations that are not reflected in the claim. The three dimensional network of silica as claimed is formed. Applicant's attention is further directed to column 2 lines 14-15, column 6 lines 33-36 column 7 lines 7-12 where the inorganic fine particles are described. Herein, the networks are described and seen to anticipate the network as claimed. There are no claim limitations that distinguish the claimed invention from that as described in the prior art. The features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. Applicant then argues that the polymer chains of Tomihisa would be expected to prevent the formation of the three dimensional network as claimed. This is not persuasive. Tomihisa describes three dimensional networks as claimed. The polymer chains of Tomihisa read on, and anticipate the "bridge chains" as claimed. These polymers can have the same functional groups as claimed and be reacted with compounds having the functional groups, see column 8 lines 23+ and column 11 lines 1+.

8. The illustration of the hydrolysis and condensation reaction is the remarks and declaration is not germane to the patentability. The three dimensional networked inorganic fine particles formed by this reaction are not patentably distinguished from the three dimensional network as claimed.

Art Unit: 1762

9. Applicant then alleges that the fine particles of Tomihisa are bonded by silicon-oxygen bonds which do not contain either carbon or hydrogen. This is not persuasive. The claimed silica particles are silica and oxygen compounds. There are no carbon or hydrogen atoms between the silicon and oxygen atoms of the silica in the claimed invention. The carbon and hydrogen are in the bridge chains between silica particles within the network. Tomihisa teaches chains comprising carbon and hydrogen between the inorganic fine particles so as to form a three dimensional network, see column 8 lines 54+.

10. Applicant's obviousness analysis following the *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966) is not relevant to the rejection as set forth herein. The rejection under 35 USC 102/103 set forth herein is essentially, an anticipation rejection. Rejections under 35 USC 102/103 are appropriate when the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § § 2112-2112.02.

11. Further, when the reference teaches a genus which places a claimed species in the possession of the public as in *In re Schaumann*, 572 F.2d 312, 197 USPQ 5 (CCPA 1978), and the species would have been obvious even if the genus were not sufficiently small to justify a rejection under 35 U.S.C. 102. See MPEP § § 2131.02 and 2144.08 for more information on anticipation and obviousness of species by a disclosure of a genus.

Art Unit: 1762

12. Additionally, when the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP §2113.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter D. Mulcahy whose telephone number is 571-272-1107. The examiner can normally be reached on Mon.-Fri. 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter D. Mulcahy/
Primary Examiner, Art Unit 1762